

TABLE 4.10.5–1.—Radionuclide Releases From LLNL, 1998-2002

Release Location (Operation)	Predominant Radionuclides Released	Curies Emitted per Year (Numbers in parentheses indicate percent contribution to site-wide maximally exposed individual dose from that facility)				
		1998	1999	2000	2001	2002
Livermore Site						
Building 612 Yard (Low Level Waste Storage)	H-3	4.6 (35)	4.4 (15)	3.6 (40)	2.0 (48)	2.3 (4.8)
Building 331 Stacks (Tritium R&D + Parts Decontamination)	H-3	110 (53)	276 (72)	39.8 (25)	19.7 (25)	36 (35)
Building 514 Tank Farm (Process Liquid)	H-3, C-14, Sr-90 and others				5.5×10^{-6} (8)	
Southeast Quadrant Diffuse Sources (Resuspension)	Pu-239				DS (5)	
Building 612, Room 102 (Laboratory Analysis)	H-3, C-14, Sr-90 and others				2.0×10^{-6} (4)	1.5×10^{-5} (5)
Building 514 Evaporator (Waste Consolidation)	H-3, P-32, U-238 and others			7.2×10^{-7} (16)	1.0×10^{-7} (3)	9.6×10^{-6} (5)
Outside Building 331 (Contaminated Parts Storage)	H-3	6 (7)	7.3 (5)	5.2 (12)		1.0 (4)
Site 300						
Building 851 Firing Table (Explosive Tests)	U238	2.4×10^{-2}	1.5×10^{-2}	6.2×10^{-2}	1.5×10^{-2}	
	U235	3.1×10^{-4}	3.1×10^{-4}	3.1×10^{-4}	2.0×10^{-4}	
	U234	2.3×10^{-3}	2.3×10^{-3}	2.3×10^{-3}	1.4×10^{-3}	
	H-3	19 (61)	0 (79)	0 (93)	0 (85)	
Entire Site (Soil Resuspension)	U238	DS	DS	DS	DS	DS
	U235	DS	DS	DS	DS	DS
	U234	DS	DS	DS	DS	DS
		(22)	(3)	(21)	(7)	(15)
Building 801 Firing Table (Explosive Tests)	U238	7.2×10^{-2}	4.8×10^{-2}			
	U235	9.3×10^{-4}	6.1×10^{-4}			
	U234	6.8×10^{-3}	4.4×10^{-3}			
		(70)	(36)			

Source: LLNL 1999a, LLNL 2000h, LLNL 2001v, LLNL 2002cc, LLNL 2003l.

Note: Entry of blank curies per year indicates a source that did not contribute to the 90th percentile releases.

DS: Doses from diffuse source are calculated from measured ambient concentrations rather than release rates.